

## WHAT IS CLAIMED IS:

1. A portable electrocardiograph comprising:

a stacked-layered circuit board;

5 an electrocardiogram measurement device that measures an electrocardiogram to obtain electrocardiogram data; and

a radio communication device that radio-transmits the electrocardiogram data obtained by said electrocardiogram measurement device in real time, wherein

10 said stacked-layered circuit board includes a plurality of circuit boards and a ground conductor layer provided between any ones of said plurality of circuit boards,

said electrocardiogram measurement device is arranged on one side of said stacked-layered circuit board, and said  
15 radio communication device is arranged on the other side of said stacked-layered circuit board.

2. The portable electrocardiograph according to claim 1, further comprising a casing that houses said  
20 electrocardiogram measurement device, said radio communication device, and said stacked-layered circuit board.

3. The portable electrocardiograph according to claim 1, further comprising a first storage device that stores the  
25 electrocardiogram data obtained by said electrocardiogram

measurement device.

4. The portable electrocardiograph according to claim  
1, further comprising an accelerometer that measures  
5 acceleration to obtain acceleration data, wherein

said radio communication device radio-transmits the  
acceleration data obtained by said accelerometer in real time.

5. The portable electrocardiograph according to claim  
10 4, further comprising a second storage device that stores the  
acceleration data obtained by said accelerometer.

6. The portable electrocardiograph according to claim  
1, wherein said radio communication device receives a given  
15 alarm signal,

the portable electrocardiograph further comprising an  
alarm sound output device that outputs an alarm sound in  
response to the alarm signal received by said radio  
communication device.

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7. The portable electrocardiograph according to claim  
1, wherein said radio communication device receives a given  
alarm signal,

the portable electrocardiograph further comprising an  
25 alarm display device that displays an alarm in response to the

alarm signal received by said radio communication device.

8. An electrocardiogram monitoring system comprising:

a portable electrocardiograph housing an  
5 electrocardiogram measurement device that measures an  
electrocardiogram to obtain electrocardiogram data and a  
communication device that radio-transmits the  
electrocardiogram data obtained by said electrocardiogram  
measurement device in real time; and

10 a computer that receives the electrocardiogram data  
transmitted from said portable electrocardiograph and has a  
display unit that displays the received electrocardiogram  
data.

15 9. The electrocardiogram monitoring system according to  
claim 8, wherein said portable electrocardiograph further  
houses a storage device that stores the electrocardiogram data  
obtained by said electrocardiogram measurement device.

20 10. The electrocardiogram monitoring system according  
to claim 8, wherein

said communication device is a radio communication  
device that radio-transmits the electrocardiogram data to a  
base station connected to a public network, and

25 said computer includes a communication equipment that

receives the electrocardiogram data transmitted from said base station via the public network.

11. The electrocardiogram monitoring system according  
5 to claim 10, wherein said communication equipment receives the electrocardiogram data transmitted from said base station via the public network via a line.

12. The electrocardiogram monitoring system according  
10 to claim 10, wherein said communication equipment receives by radio communication the electrocardiogram data transmitted from said base station to other base station via the public network.

13. The electrocardiogram monitoring system according  
15 to claim 10, wherein said communication equipment receives the electrocardiogram data transmitted from said base station via the public network by way of Internet.

14. The electrocardiogram monitoring system according  
20 to claim 8, wherein said communication device is a radio communication device that radio-transmits the electrocardiogram data to a base station connected to a private network, and

25 said computer receives the electrocardiogram data

transmitted from said base station via the private network.

15. The electrocardiogram monitoring system according to claim 8, wherein said computer has a function of transmitting  
5 a signal to said portable electrocardiograph,

said communication device in said portable electrocardiograph receives the signal transmitted from said computer, and

said portable electrocardiograph further includes an  
10 alarm output unit that outputs an alarm based on the signal received by said communication device.

16. The electrocardiogram monitoring system according to claim 8, wherein said portable electrocardiograph comprises  
15 a stacked-layered circuit board and has a casing that houses said electrocardiogram measurement device, said communication device, and said stacked-layered circuit board,

said stacked-layered circuit board includes a plurality of circuit boards and a ground conductor layer provided between  
20 any ones of said plurality of circuit boards, and

said electrocardiogram measurement device is arranged on one side of said stacked-layered circuit board, and said communication device is arranged on the other side of said stacked-layered circuit board.

17. The electrocardiogram monitoring system according to claim 8, wherein said portable electrocardiograph further houses an acceleration measurement device that measures acceleration to obtain acceleration data,

5        said communication device radio-transmits the acceleration data obtained by said acceleration measurement device in real time, said computer receives the acceleration data transmitted from said portable electrocardiograph to display the acceleration on said display unit based on the  
10    received acceleration data.

18. An electrocardiogram monitoring method comprising the steps of:

      operating a portable electrocardiograph housing an  
15    electrocardiogram measurement device and a communication device;

      measuring an electrocardiogram with said electrocardiogram measurement device to obtain electrocardiogram data;

20        radio-transmitting the electrocardiogram data obtained by said electrocardiogram measurement device through said communication device in real time; and

      receiving the electrocardiogram data transmitted from said portable electrocardiograph by a computer to display the  
25    electrocardiogram on a display unit based on the received

electrocardiogram data.